

Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A method of non-linear processing of at least one set of input luminance, saturation, and hue parameter values (Y, S, H) of input picture signals (R, G, B) so as to produce output picture signals (R', G', B') , with output based on the hue parameter value and modified luminance and saturation parameter values (Y', S', H) , characterized in that wherein the non-linear processing is responsive to the hue parameter values (H) of the input picture signals (R, G, B) .
2. (Currently amended) ~~A method as claimed in~~ The method of claim 1, wherein the non-linear processing ~~involves the steps of~~ includes determining a power γ_H depending on the hue parameter values (H) , and raising ~~a the saturation-related input parameter values~~ S to the power γ_H .
3. (Currently amended) ~~A method as claimed in~~ The method of claim 2, further ~~comprising the step of including~~ adapting the power γ_H based on histogram data derived from one or more of the input parameter values (Y, S, H) .
4. (Currently amended) ~~A method as claimed in~~ The method of claim 1, wherein the non-linear processing ~~involves the steps of~~ includes determining a power γ_Y depending on the hue parameter values (H) , and raising ~~a brightness-related input~~ the luminance parameter values (Y) to the power γ_Y .
5. (Currently amended) ~~A method as claimed in~~ The method of claim 4, further ~~comprising the step of including~~ adapting the power γ_Y based on histogram data derived from one or more of the input parameter values (Y, S, H) .

6. (Currently amended) ~~A method as claimed in~~ The method of claim 2, wherein the non-linear processing of the saturation ~~related input~~ parameter values S depends on maximum saturation values S_{\max} .

7. (Currently amended) ~~A method as claimed in~~ The method of claim 6, wherein the maximum saturation values S_{\max} depend on the hue parameter values (H).

8. (Currently amended) ~~A method as claimed in~~ The method of claim 6, wherein the maximum saturation values S_{\max} depend on a ~~brightness-related output~~ the modified luminance parameter value (Y^+).

9. (Currently amended) ~~A method as claimed in~~ The method of claim 6, wherein a ~~saturation-related output~~ the modified saturation parameter value S' is substantially determined by the equation:

$$S' = S_{\max} (S / S_{\max})^{\gamma_h}$$

where S is the saturation parameter value, S_{\max} is the maximum saturation value, and γ_h is the power.

10. (Currently amended) ~~A method as claimed in~~ The method of claim 3, wherein, for a predetermined hue parameter value (H), the power γ_h is adapted on the basis of a weighed[[i]] average saturation parameter value of the input picture signals, representing pixels in a window of an image.

11. (Currently amended) ~~A method as claimed in~~ The method of claim 10, wherein, for a predetermined hue parameter value (H), the power γ_h for a current window is ~~adapted in dependence~~ dependent on the histogram data of ~~the~~ a current and/or a previous window.

12. (Original) An apparatus comprising picture processing circuitry for carrying out the method as claimed in claim 1.

13. (New) A method comprising:

receiving input picture signal values,

determining hue, saturation, and luminance values based on the input signal values,

processing the saturation and luminance values using one or more exponential processes based on the hue values to provide at least one of modified saturation values and modified luminance values, and

determining output picture signal values based at least in part on the at least one modified saturation and modified luminance values.

14. (New) The method of claim 13, wherein the exponential process includes determining a power based on the hue value and raising at least one of the saturation and luminance values to the power.

15. (New) The method of claim 14, wherein determining the power is based at least in part on hue values of prior input picture signal values.

16. (New) The method of claim 13, wherein the one or more exponential processes are based at least in part on hue values of prior input picture signal values.

17. (New) The method of claim 13, wherein the modified saturation values are based on maximum saturation values.

18. (New) The method of claim 17, wherein the maximum saturation values are based on the modified luminance values.

19. (New) A system comprising:

a source of luminance, saturation, and hue values, and
one or more exponential function blocks that are configured to provide at least one of a modified luminance value and a modified saturation value based on the hue value.

20. (New) The system of claim 19, including a controller that is configured to provide a power based at least in part on the hue value and prior hue values to the exponential function block, and the exponential function block is configured to raise one of the luminance and saturation values to that power.